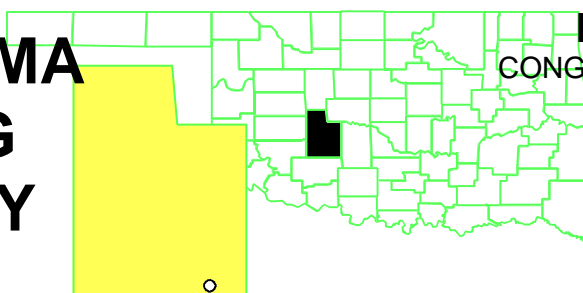


OKLAHOMA REFINING COMPANY OKLAHOMA

EPA ID# OKD091598870



EPA REGION 6
CONGRESSIONAL DISTRICT 06
Caddo County

Updated: 06/22/00

Site Description

Location: ! The Oklahoma Refining Site (Site) is located on South Baskett Street in Cyril in southeastern Caddo County, Oklahoma.

Population: ! There are approximately 1,600 residents in the vicinity of the Site.

Setting: ! A 160-acre-abandoned Site that was a refinery from 1920 until 1984. There was land farming on part of the Site.
! Petroleum refining waste in approximately 50 impoundments (many unlined) and several buried waste areas.
! Two nearby recreational creeks, Gladys and Chetonia.
! Approximately 1,600 people on public or private drinking water wells within three miles of the Site, with the closest well (private) within 1000 feet of the Site.
! New owners attempted operation of the adjacent refinery process area in the fall 1993.

Hydrology: ! Surface soils at the Site are primarily sandy loam and gypsum.
! Shallow ground water beneath the Site flows away from the community and discharges into Gladys Creek at the eastern and northern boundaries of the Site.
! Area water supplies are provided by Rural Water District wells located several miles away from the city of Cyril and are not affected by the Site.

Wastes and Volumes

! Principal pollutants at the Site are found in the following media:
o Petroleum related organic compounds including benzene, toluene, xylene and phenols and other carcinogenic and non-carcinogenic PAH's.
o Arsenic and metals including lead, cadmium, and chromium.
o Acids and caustics.

! Site waste volumes are estimated to be 81,000 cubic yards of contaminated soil and sludge, and 150,000,000 gallons of contaminated ground water.

Site Assessment and Ranking

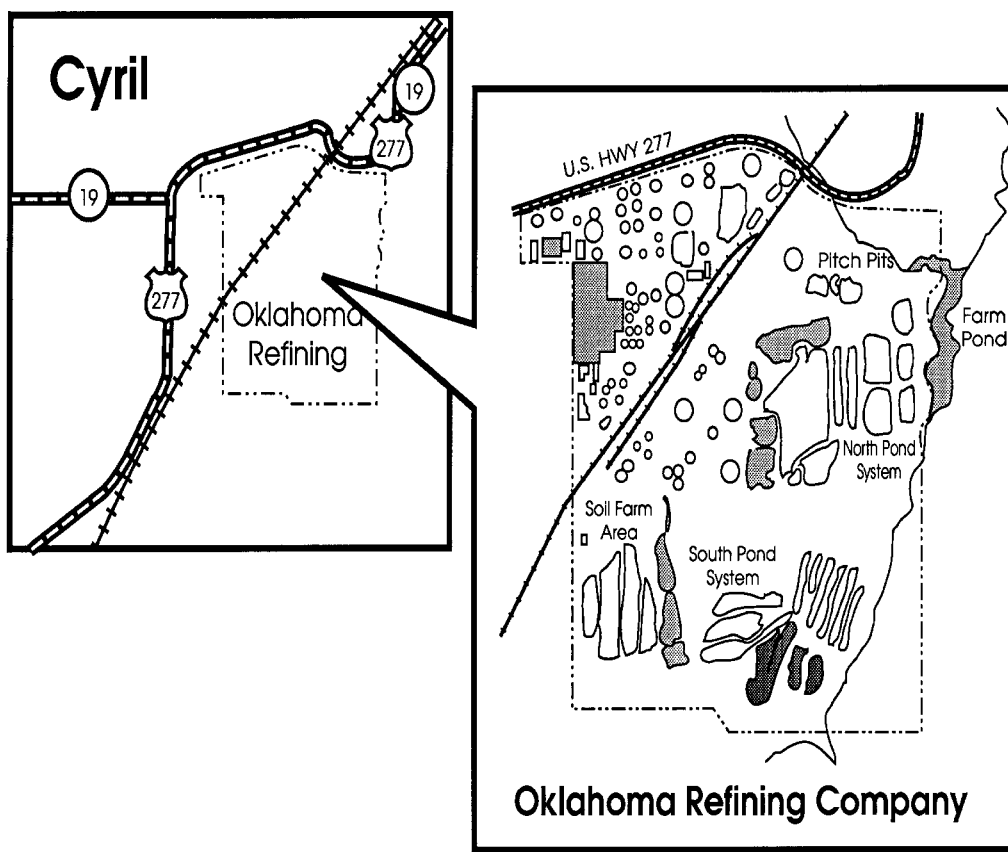
NPL LISTING HISTORY

Site HRS Score: 46.01

Proposed Date: 06/24/88

Final Date: 02/21/90

Site Map and Diagram



The Remediation Process

Site History:

! Anderson-Pritchard Oil Corporation (APCO) operated a refinery at the Site from 1920 until 1978 when the Oklahoma Refining Company (ORC) purchased the facilities. In September 1984 ORC declared Chapter 11 bankruptcy. The bankruptcy court allowed property with majority of waste to be abandoned.

! During operation, Oklahoma Refining Company placed process wastes, including some Resource Conservation and Recovery Act Subtitle C wastes, into pits (many unlined). A land farming operation was also run.

! Leachate from Site, possibly threatening the creeks, was observed in 1981.

! In September 1990, the EPA started removal activities that included: closure of twenty-three abandoned wells, off-Site disposal of 18 drums of hazardous waste, installation of netting over API separator pits to protect wildlife, skimming oily waste from ponds to prevent discharge to creek, and construction and repair of the perimeter fence. These activities were completed in June 1992.

! The State of Oklahoma began a remedial investigation/feasibility study in November 1990 to evaluate the extent and magnitude of contamination at the Site.

! Based on these investigations, the EPA selected biological treatment, neutralization, and stabilization of the wastes in a Record of Decision in June 1992.

! The State of Oklahoma completed several design treatability studies, and a Value Engineering Study.

! The Oklahoma Department of Central Services (DCS) issued the design documents, construction specifications and bid documents. Bids for the remedial action were received and DCS awarded the contract to the lowest responsible and responsive bidder.

Health Considerations:

! Direct contact exposure currently to trespassers and workers and to others upon redevelopment of the property.

! Contaminated water discharging to Gladys Creek.

Record of Decision

Signed: June 9, 1992

Ground Water:

! An Explanation of Significant Differences was signed by the Regional Administrator on March 27, 1996 to postpone the "pump and treat" ground water treatment system until further evaluations can be made after remediation of the surface wastes are complete. A Light Non-Aqueous Phase Liquid cutoff/collection trench will be constructed to collect floating product down gradient of the refinery. The collected product is to be recycled, if feasible.

Soil Treatment:

- ! Biological treatment of 39,000 cubic yards of organic contaminated material; stabilization of residue.
- ! Neutralization of 19,000 cubic yards of sediments.
- ! In situ stabilization of 16,000 cubic yards of metals-contaminated material.
- ! Cap in-place approximately 13,000 cubic yards of "off-spec" asphalt.

Other Remedies Considered

Ground Water:

1. **No Action**
2. **Limited Action**
3. **Containment, removal of entire LNAPL plume, and onsite bioremediation enhancement of entire Site.**
4. **Active restoration of entire Site.**
5. **Active restoration of nonexcluded portion of Site.**

Sediment and Surface Soils:

1. **No Action**
2. **Limited Action**
3. **Containment, neutralization, and bioremediation.**
4. **Bioremediation, containment, onsite stabilization, neutralization.**
5. **Low temperature thermal desorption, onsite stabilization, neutralization, recycling.**

Community Involvement

- ! Responsibility of Oklahoma Department of Environmental Quality with EPA oversight.
- ! Community Involvement Plan: Developed 12/89
- ! Open houses and workshops: 02/90, 01/92, 3/94, 5/96, 7/97, 7/98, 10/98, 4/99
- ! Original Proposed Plan Fact Sheet and Public Meeting: 02/92
- ! Original ROD Fact Sheet: 07/92
- ! Citizens on Site mailing list: 75
- ! Milestone Fact Sheet: 3/94, 10/94, 4/96, 5/97
- ! Constituency Interest:
 - ! Potential for direct contact with contaminants upon redevelopment of the property.
 - ! Ground water contamination discharging into the creek adjacent to the Site.
 - ! Site Repository is at the Cyril City Hall, 112 West Main Street, Cyril, OK 73029

Technical Assistance Grant

- ! Availability Notice: 10/89, Re-advertised 08/90, and offered with each Fact Sheet.
- ! Letters of Intent Received: None
- ! Grant Award: None
- ! No apparent citizen interest in a grant.

Contacts

- ! **Remedial Project Manager (EPA):** Earl Hendrick, (214) 665-8519, Mail Code 6SF-AP
- ! **State Contact:** Gretchen McDonnell, (405) 702-5137
- ! **Attorney (EPA):** Jon Weisberg, (214) 665-2180, Mail Code 6SF-DL
- ! **State Coordinator (EPA):** Roberta Hirt, (214) 665-8079, Mail code 6SF-AP
- ! **R6 Ombudsman (EPA):** Arnie Ondarza, (214) 665-6790, Mail code 6SF
- ! **Prime Contractors:** Bechtel - RI/FS; Clayton/Mittelhauser - RD & RA Oversight; Philip Services Corporation - RA Construction

Enforcement

- ! **PRPs Identified:** Cyril Petrochemical Corporation, Oklahoma Refining Company, and Cayman Resources
- ! **Viable PRPs:** none
- ! Waived Special Notice, proceeding with Fund Lead.

Present Status and Issues

- ! The current owner/operator of the refinery portion of the Site started up some of the process facilities but has ceased operations.
- ! The community is supportive of both the operation of the refining portion of the property and the efforts of EPA and the State to address contamination on the abandoned portion of the property.
- ! The city of Cyril is interested in redevelopment of the property.
- ! Remedial Action that will remove threats to human health and threats to the ground water has started.
- ! The Contractor, Philip Services Corporation, constructed the two RCRA landfills and placed 17,956 cubic yards of buffer soil in the landfills; is completing the bioremediation of 92,517 cubic yards of contaminated soil; has completed the neutralization of 16,017 cubic yards of contaminated soil; has completed the stabilization of 14,401 cubic yards of contaminated soil; and has started landscaping and seeding remediated portions of the Site.

Benefits

- ! 145,227 cubic yards of contaminated soil and sludge will be addressed by the selected remedy.
- ! The property will be suitable for certain types of redevelopment.